

Serial Number:

08/823,980C

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JUL 20

TECH CENTER 1800/2900

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line
- ☐ Edited a format error in the Current Application Data section, specifically: _____
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: _____
- ☐ Deleted extra, invalid, headings used by an applicant, specifically: _____
- ☒ Deleted: ☒ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____
- ☐ Inserted mandatory headings, specifically: _____
- ☐ Corrected an obvious error in the response, specifically: _____
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: _____
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted **ending** stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- ☒ Other: Seq 107-109 - aligned a.a. nos

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

RAW SEQUENCE LISTING DATE: 07/10/2000
 PATENT APPLICATION: US/08/823,980C TIME: 12:31:41

Input Set : A:\Pto.amc
 Output Set: N:\CRF3\07102000\H823980C.raw

RECEIVED
 JUL 20 2000
 TECH CENTER 1600/2900

SEQUENCE LISTING

```

4 (1) GENERAL INFORMATION:
6   (i) APPLICANT: Weiner, Amy J.
7           Houghton, Michael
9   (ii) TITLE OF INVENTION: Conserved Motif of Hepatitis C Virus
10          E2/NS1 Region
12   (iii) NUMBER OF SEQUENCES: 134
14   (iv) CORRESPONDENCE ADDRESS:
15         (A) ADDRESSEE: Chiron Corporation
16         (B) STREET: 4560 Horton Street
17         (C) CITY: Emeryville
18         (D) STATE: CA
19         (E) COUNTRY: USA
20         (F) ZIP: 94608-2916
22   (v) COMPUTER READABLE FORM:
23         (A) MEDIUM TYPE: Floppy disk
24         (B) COMPUTER: IBM PC compatible
25         (C) OPERATING SYSTEM: PC-DOS/MS-DOS
26         (D) SOFTWARE: PatentIn Release #1.0, Version #1.25
C--> 28   (vi) CURRENT APPLICATION DATA:
C--> 29         (A) APPLICATION NUMBER: US/08/823,980C
C--> 30         (B) FILING DATE: 25-Mar-1997
31         (C) CLASSIFICATION:
33   (viii) ATTORNEY/AGENT INFORMATION:
34         (A) NAME: Rosen, Mark J.
35         (B) REGISTRATION NUMBER: 39,822
36         (C) REFERENCE/DOCKET NUMBER: CHIR-0108
38   (ix) TELECOMMUNICATION INFORMATION:
39         (A) TELEPHONE: 215-564-6525
40         (B) TELEFAX: 215-568-3439
43 (2) INFORMATION FOR SEQ ID NO: 1:
45   (i) SEQUENCE CHARACTERISTICS:
46         (A) LENGTH: 6 amino acids
47         (B) TYPE: amino acid
48         (C) STRANDEDNESS: single
49         (D) TOPOLOGY: linear
51   (ii) MOLECULE TYPE: peptide
53   (ix) FEATURE:
54         (A) NAME/KEY: Xaa
55         (B) LOCATION: 1
56         (D) OTHER INFORMATION: /label= variable
57 /note= "Represents Ala, Arg, Asp, Gly, Lys, Ser,
58 or Thr"
60   (ix) FEATURE:
61         (A) NAME/KEY: Xaa
62         (B) LOCATION: 2
63         (D) OTHER INFORMATION: /label= variable

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RAW SEQUENCE LISTING

DATE: 07/10/2000

PATENT APPLICATION: US/08/823,980C

TIME: 12:31:41

Input Set : A:\Pto.amc

Output Set: N:\CRF3\07102000\H823980C.raw

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64 /note= "Represents Ile, Leu, Met, Phe or Trp"
66 (ix) FEATURE:
67 (A) NAME/KEY: Xaa
68 (B) LOCATION: 3
69 (D) OTHER INFORMATION: /label= variable
70 /note= "Represents Leu or Phe"
72 (ix) FEATURE:
73 (A) NAME/KEY: Xaa
74 (B) LOCATION: 6
75 (D) OTHER INFORMATION: /label= variable
76 /note= "Represents Ala or Gly"
79 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
W--> 81 Xaa Xaa Xaa Xaa Xaa Xaa
82 1 5
85 (2) INFORMATION FOR SEQ ID NO: 2:
87 (i) SEQUENCE CHARACTERISTICS:
88 (A) LENGTH: 32 amino acids
89 (B) TYPE: amino acid
90 (C) STRANDEDNESS: single
91 (D) TOPOLOGY: linear
93 (ii) MOLECULE TYPE: peptide
95 (ix) FEATURE:
96 (A) NAME/KEY: Xaa
97 (B) LOCATION: 1
98 (D) OTHER INFORMATION: /label= Dpr
99 /note= 2,3-diaminopropionic is acetyl cysteine
101 (ix) FEATURE:
102 (A) NAME/KEY: Xaa
103 (B) LOCATION: 2
104 (D) OTHER INFORMATION: /label= Ahe
105 /note= 2-amino heptanoic is butyl alanine
111 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
W--> 113 Xaa Xaa Glu Thr His Val Thr Gly Gly Ser Ala Gly His Thr Val Ser
114 1 5 10 15
116 Gly Phe Val Ser Leu Leu Ala Pro Gly Ala Lys Gln Asn Val Gln Leu
117 20 25 30
121 (2) INFORMATION FOR SEQ ID NO: 3:
123 (i) SEQUENCE CHARACTERISTICS:
124 (A) LENGTH: 5 amino acids
125 (B) TYPE: amino acid
126 (C) STRANDEDNESS: single
127 (D) TOPOLOGY: linear
129 (ii) MOLECULE TYPE: peptide
133 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
135 Val Ser Leu Leu Ala
136 1 5
139 (2) INFORMATION FOR SEQ ID NO: 4:
141 (i) SEQUENCE CHARACTERISTICS:
142 (A) LENGTH: 7 amino acids

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RAW SEQUENCE LISTING DATE: 07/10/2000
 PATENT APPLICATION: US/08/823,980C TIME: 12:31:41

Input Set : A:\Pto.amc
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143         (B) TYPE: amino acid
144         (C) STRANDEDNESS: single
145         (D) TOPOLOGY: linear
147     (ii) MOLECULE TYPE: peptide
151     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
153     Ser Leu Leu Ala Pro Gly Ala
154     1             5
157 (2) INFORMATION FOR SEQ ID NO: 5:
159     (i) SEQUENCE CHARACTERISTICS:
160         (A) LENGTH: 5 amino acids
161         (B) TYPE: amino acid
162         (C) STRANDEDNESS: single
163         (D) TOPOLOGY: linear
165     (ii) MOLECULE TYPE: peptide
169     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
171     Leu Ala Pro Gly Ala
172     1             5
176 (2) INFORMATION FOR SEQ ID NO: 6:
178     (i) SEQUENCE CHARACTERISTICS:
179         (A) LENGTH: 7 amino acids
180         (B) TYPE: amino acid
181         (C) STRANDEDNESS: single
182         (D) TOPOLOGY: linear
184     (ii) MOLECULE TYPE: peptide
187     (ix) FEATURE:
188         (A) NAME/KEY: Xaa
189         (B) LOCATION: 7
190         (D) OTHER INFORMATION: /label= variable
191 /note= "Represents Ala, Pro or Ser"
194     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
W--> 196     Ser Leu Leu Xaa Xaa Gly Xaa
197     1             5
200 (2) INFORMATION FOR SEQ ID NO: 7:
202     (i) SEQUENCE CHARACTERISTICS:
203         (A) LENGTH: 7 amino acids
204         (B) TYPE: amino acid
205         (C) STRANDEDNESS: single
206         (D) TOPOLOGY: linear
208     (ii) MOLECULE TYPE: peptide
210     (ix) FEATURE:
211         (A) NAME/KEY: Xaa
212         (B) LOCATION: 7
213         (D) OTHER INFORMATION: /label= variable
214 /note= "Represents Ala, Pro or Ser"
217     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
W--> 219     Ser Leu Phe Xaa Xaa Gly Xaa
220     1             5
224 (2) INFORMATION FOR SEQ ID NO: 8:
226     (i) SEQUENCE CHARACTERISTICS:

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RAW SEQUENCE LISTING DATE: 07/10/2000
 PATENT APPLICATION: US/08/823,980C TIME: 12:31:41

Input Set : A:\Pto.amc
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227      (A) LENGTH: 31 amino acids
228      (B) TYPE: amino acid
229      (C) STRANDEDNESS: single
230      (D) TOPOLOGY: linear
232      (ii) MOLECULE TYPE: peptide
234      (ix) FEATURE:
235          (A) NAME/KEY: Xaa
236          (B) LOCATION: 1
237          (D) OTHER INFORMATION: /label= variable
238 /note= "Represents Any Amino Acid"
240      (ix) FEATURE:
241          (A) NAME/KEY: Xaa
242          (B) LOCATION: 3
243          (D) OTHER INFORMATION: /label= variable
244 /note= "Represents Any Amino Acid"
246      (ix) FEATURE:
247          (A) NAME/KEY: Xaa
248          (B) LOCATION: 8
249          (D) OTHER INFORMATION: /label= variable
250 /note= "Represents Any Amino Acid"
252      (ix) FEATURE:
253          (A) NAME/KEY: Xaa
254          (B) LOCATION: 14
255          (D) OTHER INFORMATION: /label= variable
256 /note= "Represents Any Amino Acid"
257      (ix) FEATURE:
258          (A) NAME/KEY: Xaa
259          (B) LOCATION: 16
260          (D) OTHER INFORMATION: /label= variable
261 /note= "Represents Any Amino Acid"
263      (ix) FEATURE:
264          (A) NAME/KEY: Xaa
265          (B) LOCATION: 17
266          (D) OTHER INFORMATION: /label= variable
267 /note= "Represents Any Amino Acid"
269      (ix) FEATURE:
270          (A) NAME/KEY: Xaa
271          (B) LOCATION: 21
272          (D) OTHER INFORMATION: /label= variable
273 /note= "Represents Any Amino Acid"
275      (ix) FEATURE:
276          (A) NAME/KEY: Xaa
277          (B) LOCATION: 22
278          (D) OTHER INFORMATION: /label= variable
279 /note= "Represents Any Amino Acid"
281      (ix) FEATURE:
282          (A) NAME/KEY: Xaa
283          (B) LOCATION: 24
284          (D) OTHER INFORMATION: /label= variable

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RAW SEQUENCE LISTING DATE: 07/10/2000
 PATENT APPLICATION: US/08/823,980C TIME: 12:31:41

Input Set : A:\Pto.amc
 Output Set: N:\CRF3\07102000\H823980C.raw

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285 /note= "Represents Any Amino Acid"
287 (ix) FEATURE:
288 (A) NAME/KEY: Xaa
289 (B) LOCATION: 27
290 (D) OTHER INFORMATION: /label= variable
291 /note= "Represents Any Amino Acid"
293 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
W--> 295 Xaa Thr Xaa Val Thr Gly Gly Xaa Ala Ala Arg Thr Thr Xaa Gly Xaa
296 1 5 10 15
W--> 298 Xaa Ser Leu Phe Xaa Xaa Gly Xaa Ser Gln Xaa Ile Gln Leu Ile
299 20 25 30
303 (2) INFORMATION FOR SEQ ID NO: 9:
305 (i) SEQUENCE CHARACTERISTICS:
306 (A) LENGTH: 31 amino acids
307 (B) TYPE: amino acid
308 (C) STRANDEDNESS: single
309 (D) TOPOLOGY: linear
311 (ii) MOLECULE TYPE: peptide
313 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
315 Ala Thr Tyr Ala Thr Gly Ala Ala Gln Gly His Ala Thr Asn Ser Phe
316 1 5 10 15
318 Val Ser Leu Phe Arg Ser Gly Ala Ser Gln Asn Leu Lys Leu Val
319 20 25 30
322 (2) INFORMATION FOR SEQ ID NO: 10:
324 (i) SEQUENCE CHARACTERISTICS:
325 (A) LENGTH: 31 amino acids
326 (B) TYPE: amino acid
327 (C) STRANDEDNESS: single
328 (D) TOPOLOGY: linear
330 (ii) MOLECULE TYPE: peptide
332 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
334 Ser Thr Gln Val Thr Gly Gly Gln Ala Ala His Thr Val Arg Gly Val
335 1 5 10 15
337 Ala Ser Ile Phe Ser Pro Gly Ser Arg Gln Asp Ile Ser Leu Ile
338 20 25 30
342 (2) INFORMATION FOR SEQ ID NO: 11:
344 (i) SEQUENCE CHARACTERISTICS:
345 (A) LENGTH: 31 amino acids
346 (B) TYPE: amino acid
347 (C) STRANDEDNESS: single
348 (D) TOPOLOGY: linear
350 (ii) MOLECULE TYPE: peptide
352 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
354 Ser Thr Arg Val Thr Gly Gly Gln Gln Gly Arg Ala Val His Gly Ile
355 1 5 10 15
357 Ala Ser Leu Phe Ser Leu Gly Ala Ser Gln Lys Ile Gln Leu Val
358 20 25 30
360 (2) INFORMATION FOR SEQ ID NO: 12:
362 (i) SEQUENCE CHARACTERISTICS:

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VERIFICATION SUMMARY

DATE: 07/10/2000

PATENT APPLICATION: US/08/823,980C

TIME: 12:31:42

Input Set : A:\Pto.amc

Output Set: N:\CRF3\07102000\H823980C.raw

L:28 M:220 C: Keyword misspelled or invalid format, [(vi) CURRENT APPLICATION DATA:]
L:29 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:30 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:81 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:113 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:196 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:219 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:295 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:298 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:2737 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:133
L:2757 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:134

1644

RAW SEQUENCE LISTING DATE: 07/07/2000
 PATENT APPLICATION: US/08/823,980C TIME: 12:29:11

Input Set : A:\ES.txt
 Output Set: N:\CRF3\07072000\H823980C.raw

SEQUENCE LISTING

4 (1) GENERAL INFORMATION:
 6 (i) APPLICANT: Weiner, Amy J.
 7 Houghton, Michael
 9 (ii) TITLE OF INVENTION: Conserved Motif of Hepatitis C Virus
 10 E2/NS1 Region
 12 (iii) NUMBER OF SEQUENCES: 134
 14 (iv) CORRESPONDENCE ADDRESS:
 15 (A) ADDRESSEE: Chiron Corporation
 16 (B) STREET: 4560 Horton Street
 17 (C) CITY: Emeryville
 18 (D) STATE: CA
 19 (E) COUNTRY: USA
 20 (F) ZIP: 94608-2916
 22 (v) COMPUTER READABLE FORM:
 23 (A) MEDIUM TYPE: Floppy disk
 24 (B) COMPUTER: IBM PC compatible
 25 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
 26 (D) SOFTWARE: PatentIn Release #1.0, Version #1.25
 C--> 28 (vi) CURRENT APPLICATION DATA:
 C--> 29 (A) APPLICATION NUMBER: US/08/823,980C
 C--> 30 (B) FILING DATE: 25-Mar-1997
 31 (C) CLASSIFICATION:
 33 (viii) ATTORNEY/AGENT INFORMATION:
 34 (A) NAME: Rosen, Mark J.
 35 (B) REGISTRATION NUMBER: 39,822
 36 (C) REFERENCE/DOCKET NUMBER: CHIR-0108
 38 (ix) TELECOMMUNICATION INFORMATION:
 39 (A) TELEPHONE: 215-564-6525
 40 (B) TELEFAX: 215-568-3439

Does Not Comply
 Corrected Diskette Needed

ERRORED SEQUENCES

2176 (2) INFORMATION FOR SEQ ID NO: 107:
 2178 (i) SEQUENCE CHARACTERISTICS:
 2179 (A) LENGTH: 31 amino acids
 2180 (B) TYPE: amino acid
 2181 (C) STRANDEDNESS: single
 2182 (D) TOPOLOGY: linear
 2184 (ii) MOLECULE TYPE: peptide
 2188 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 107:
 2190 Ala Thr Tyr Thr Ser Gly Gly Val Ala Gly Arg Thr Thr Ser Gly
 2191 1 5 10 15
 2193 Phe Thr Ser Leu Phe Ser Ser Gly Ala Ser Gln Lys Ile Gln Leu Val
 E--> 2194 ~~20~~ 20 ~~25~~ 25 ~~30~~ 30
 2218 (2) INFORMATION FOR SEQ ID NO: 109:

RAW SEQUENCE LISTING DATE: 07/07/2000
 PATENT APPLICATION: US/08/823,980C TIME: 12:29:11

Input Set : A:\ES.txt
 Output Set: N:\CRF3\07072000\H823980C.raw

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2220      (i) SEQUENCE CHARACTERISTICS:
2221          (A) LENGTH: 31 amino acids
2222          (B) TYPE: amino acid
2223          (C) STRANDEDNESS: single
2224          (D) TOPOLOGY: linear
2226      (ii) MOLECULE TYPE: peptide
2230      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 109:
2231      Glu Thr His Thr Thr Gly Arg Val Val Gly His Thr Thr Ser Gly
2232      1          5          10          15
2234      Phe Thr Ser Leu Phe Ser Ser Gly Ala Ser Gln Lys Ile Gln Leu Val
E--> 2235      20 20      25 25      20 30
2744 (2) INFORMATION FOR SEQ ID NO: 134:
2746      (i) SEQUENCE CHARACTERISTICS:
2747          (A) LENGTH: 6 amino acids
2748          (B) TYPE: amino acid
2749          (C) STRANDEDNESS: single
2750          (D) TOPOLOGY: linear
2751      (ii) MOLECULE TYPE: peptide
2755      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 134:
W--> 2757      Ser Leu Phe Xaa Xaa Gly
2758      1          5
E--> 2761 1
E--> 2764 1

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VERIFICATION SUMMARY DATE: 07/07/2000
PATENT APPLICATION: US/08/823,980C TIME: 12:29:12

Input Set : A:\ES.txt
Output Set: N:\CRF3\07072000\H823980C.raw

L:28 M:220 C: Keyword misspelled or invalid format, [(vi) CURRENT APPLICATION DATA:]
L:29 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:30 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:81 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:113 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:196 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:219 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:295 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:298 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:2194 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:107
L:2235 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:109
L:2737 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:133
L:2757 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:134
L:2761 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:134
M:332 Repeated in SeqNo=134